

# MONTHLY WEATHER REVIEW.

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The MONTHLY WEATHER REVIEW summarizes the current manuscript data received from about 3,500 land stations in the United States and about 1,250 ocean vessels; it also gives the general results of the study of daily weather maps based on telegrams or cablegrams from about 200 North American and 40 European, Asiatic, and oceanic stations.

The hearty interest shown by all observers and correspondents is gratefully recognized.

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As far as practicable the time of the seventy-fifth meridian is used in the text of the MONTHLY WEATHER REVIEW.

Barometric pressures, both at land stations and on ocean vessels, whether station pressures or sea-level pressures, are reduced, or assumed to be reduced, to standard gravity, as well as corrected for all instrumental peculiarities, so that they express pressure in the standard international system of measures, namely, by the height of an equivalent column of mercury at 32° Fahrenheit, under the standard force, i. e., apparent gravity at sea level and latitude 45°.

## FORECASTS AND WARNINGS.

By Prof. E. B. GARRIOTT, in charge of Forecast Division.

### IN GENERAL.

The month opened with exceptionally high barometric pressure over the Asiatic and Iceland areas and low pressure over the western portion of the North American Continent and adjacent parts of the Pacific Ocean. An area of low barometer, with readings below 29.40 inches, was central near the southern coast of the North Sea, and a severe snowstorm, with gales and low temperature, prevailed over Great Britain, the North Sea, and adjacent coasts.

From the 1st to the 6th an area of low barometer advanced from the Pacific to the Atlantic coasts of the United States, attended by excessive precipitation in the Ohio and middle Mississippi valleys and the lower Lake region, and unusually warm and dry weather in the Gulf States. Following this depression a period of cool, dry weather set in on the Pacific coast.

From the 7th to the 14th the weather in the United States as a whole was warm and dry. Incoming trans-Atlantic steamers reported strong gales that attended the disturbance that past eastward from the American coast on the 7th. During the 7th and 8th heavy weather was experienced over the Leeward Islands of the Lesser Antilles, West Indies.

The night of the 12th the second severe storm of the month set in on the north Pacific coast, a wind velocity of 70 miles an hour being reported at North Head, Wash. This storm crossed the continent during the following four days, attended by heavy and destructive rains in the north Pacific States, and by mild temperature and general rains, except in the Southern States, and was followed by a cool wave that carried freezing temperature and snow over Virginia and parts of North Carolina on the 20th, and caused heavy frost in the interior of the east Gulf States.

From the 10th to the 14th barometric pressure considerably above normal in the Iceland area and a depression over southwestern Europe, caused a period of wintry weather over western Europe. During the 16th and 17th the barometer rose above 31.00 inches in the Asiatic area, and a period of abnor-

mally low temperature doubtless prevailed over the countries of southeastern Asia.

A depression over Bering Sea which closely followed the appearance of exceptionally high barometric pressure over the interior of Asia, crossed the North American Continent during the first half of the third decade of the month, attended from the 22d to the 24th by heavy rains, local storms, and high temperature in the Gulf States that resulted in flooded streams in that section. In the Northern States temperature was below normal during this period.

On the 23d a decided fall in the barometer occurred in the Asiatic area. On that and the following date an energetic disturbance appeared on the north Pacific coast of the United States. This disturbance advanced with increasing strength to Lake Michigan by the 26th, and moved thence over the Canadian Maritime Provinces by the 27th, attended by strong gales over the Great Lakes and the north Atlantic coast. The depression was preceded and followed by cold waves. During the 24th and 25th an area of high barometer and a moderate cold wave dropt southward and eastward from the British Northwest Territory over Manitoba, the Red River of the North Valley and Lake Superior and extended thence eastward over Ontario, northern New York, and northern New England. The cold wave that followed the passage of the disturbance caused a decided fall in temperature from the northeastern Rocky Mountain slope over the upper Mississippi Valley and Lake region. On the 26th and 27th snow fell in the middle and upper Missouri valleys and thence over the northern Lake region.

On the morning of the 27th the Asiatic area again showed a marked decrease in pressure, and on the morning of the 28th a reading of 29.54 inches was reported at Irkutsk. The giving way of pressure in the Asiatic area for the second time in the third decade of the month afforded the first marked indication of a breaking up of the winter high area of that section and the first indication of a spring adjustment of barometric pressure over the Northern Hemisphere.